

REMARKS

This is a Response to the Office Action, dated April 19, 2007 ("Office Action"). Allowance and reconsideration of the application in view of Applicants' ensuing remarks are respectfully requested. Claim 3 has been amended, claims 1-2 and 4-18 have been canceled, and claims 19-24 have been added. Claims 3 and 19-24 remain pending. No new matter has been added.

I. 35 U.S.C. § 112, Second Paragraph - Indefiniteness

Examiner rejected claims 1-2 and 4-7 as being indefinite for allegedly failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Examiner asserted that the claims encompass the term "intracellular estradiol binding protein (IEBP)" whose metes and bounds are not clear because the protein is limited by name only and names can change in the scientific field. Applicants have canceled claims 1-2 and 4-7, thereby rendering the rejection moot. However, Applicants' new claims 19-24 limit IEBP by percent identities to SEQ ID NO:1.

Examiner rejected claims 2 and 5 because the term "substantially the same amino acid sequence" is allegedly not clear because it is not clear what are the metes and bounds of the term which is "substantially the same." Applicants have canceled claims 2 and 5 thereby rendering the rejection moot. New claims 19-24 do not include the term "substantially the same amino acid sequence," and are instead limited by percent identities to SEQ ID NO:1.

Examiner asserted that claims 5 and 6 recite "further comprises" which is allegedly confusing because it is not clear how the polypeptide further comprises IEBP. Applicants have canceled claims 5 and 6 thereby rendering the rejection moot. New claims 19-24 do not recite the polypeptide as "further comprises."

II. 35 U.S.C. § 112, First Paragraph – Written Description

Examiner rejected claims 1-2 and 4-7 under 35 U.S.C. § 112, First Paragraph as allegedly containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the art that the inventors, at the time the application was filed, had possession of the claimed invention.

Examiner asserted that the essential feature of the invention is not clear because the polypeptide SEQ ID NO:1 structure is not provided and one of skill in the art cannot envision the full genus of molecules of the claimed polypeptide molecules. Applicants have canceled claims 1-2 and 4-7 thereby rendering the rejection moot. In new claims 19-24, Applicants have followed Examiner's suggestion and used percent identity language with functional language in claim limitations drawn to SEQ ID NO:1. Applicants respectfully submit that the specification describes the invention, as claimed by claims 19-24, as to reasonable convey to one of skill in the art that the inventors had possession of the invention at the time the application was filed.

III. 35 U.S.C. § 112, First Paragraph – Enablement

Examiner rejected claims 1-2 and 4-7 under 35 U.S.C. § 112, First Paragraph, because while the specification is enabling for an intracellular estradiol binding protein comprising an amino acid sequence with 95% identity to SEQ ID NO:1, it allegedly does not provide enablement for an intracellular estradiol binding protein comprising an amino acid sequence which is substantially the same as SEQ ID NO: 1 or which is limited by name only.

As mentioned above, Applicants have canceled claims 1-2 and 4-7, rendering this rejection moot, and added new claims 19-24, which use percent identity language with functional language in claim limitations drawn to SEQ ID NO:1. As set forth in the specification on page 14, lines 5-8, preferably proteins “will have at least 80%, more preferably 90% amino acid identity with respect to the reference amino acid sequence; with greater than about 95% amino acid sequence identity being especially preferred.” Figure 1 of the specification depicts a comparative analysis of the homology between IEBP and related proteins, with hsp27 having the

highest percentage of homology to IEBP at 86%. As noted by Examiner, the specification is enabling for an intracellular estradiol binding protein of 95% identity to SEQ ID NO:1. Thus, Applicants respectfully submit that the invention is enabled for an intracellular estradiol binding protein of at least 90% identity to the amino acid sequence set forth in SEQ ID NO:1, wherein said isolated polypeptide is capable of binding to estradiol.


IV. 35 U.S.C. § 102(b)

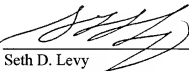
Examiner rejected claims 1-2, 4-5 and 7 under 35 U.S.C. § 102(b) as being anticipated by Gacad, et al, meeting the claim limitation of IEBP and “substantially same” amino acid sequence of SEQ ID NO:1.

Applicants have canceled claims 1-2, 4-5 and 7, rendering this rejection moot, and added new claims 19-26, which are not limited by the substantially same language, instead using percent identity language with functional language in claim limitations drawn to SEQ ID NO:1. Of the proteins described in Gacad, et al, only hsp-70 and hsc-70 are found to be capable of binding to 17-Beta-estradiol, thus falling within the functional limitation of being capable of binding to estradiol of added claims 19-24. However, as discussed above, hsp-70 has the closest sequence homology to IEBP with 86% amino acid sequence identity. Of added claims 19-26, claims 19 and 21 have the lowest percent identity language, at 90%. Thus, Applicants respectfully submit that as neither hsp-70 nor hsc-70 have 90% identity with the amino acid sequence set forth in SEQ ID NO: 1, and therefore new claims 19-24 are not anticipated under 35 U.S.C. § 102(b) by Gacad, et al.

All of the claims in the application are believed to be allowable. Favorable consideration and a Notice of Allowance are earnestly solicited. If for any reason Examiner finds the application other than in condition for allowance, Examiner is requested to call the undersigned attorney at the Los Angeles telephone number (213) 633-6800 to discuss the steps necessary for placing the application in condition for allowance.

Respectfully submitted,
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